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Legal framework for defining the continental shelf in light of article 76 of the United Nations convention on the law of the sea: A comparative study with the maritime zones law of Saudi Arabia

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Abstract

International maritime law relies on coastal governments' continental shelf sovereignty. This law regulates marine resources outside territorial waters. This study compares the Saudi Maritime Zones Law (SMZL) to The United Nations Convention on the Law of the Sea (UNCLOS) Article 76, which establishes the continental shelf. This analysis compares SMZL with UNCLOS legislation, particularly Article 17 and Article 76, which define the continental shelf (CS). The study found a high agreement between Saudi and international law, and Saudi law protects Saudi Arabia's national interests better. Due to SMZL, the Kingdom has exclusive rights to use continental shelf natural resources. The comparative study highlighted how SMZL follows UNCLOS and how Saudi Arabia protects its sovereignty and resources. The research emphasizes aligning Saudi Arabian legislation with international norms, updating local maritime laws to reflect technological advances, and encouraging international cooperation to conserve marine resources. It also emphasizes learning about CS sovereign rights. The findings suggest amending UNCLOS Article 76 to accommodate modern challenges like technological innovation, environmental sustainability, and maritime sovereignty. International cooperation is encouraged to promote fair and sustainable marine resource usage, with national legislative frameworks like SMZL Article 17 supporting international standards.

Keywords: Continental shelf, International maritime law, Maritime zones, Sea law, Sovereign rights.

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1. Introduction

Convention on the Sea Law, United Nations [1] often called the "constitution for the oceans" [2] emerged after nine years of official intergovernmental discussions, the longest in United Nations history [3]. As a result of this important work, a complete and detailed set of international laws was created, and some of its parts are now recognized as being "customary"

[4]. The UNCLOS establishes the legal framework under international law that delineates the responsibilities and rights of governments concerning activities in the seas around the globe [5].

The UNCLOS provides an extensive framework regulating practically all activity on, within, beneath, and above the sea [6]. The convention, as stated in its preamble, establishes a legal framework for the seas and oceans to facilitate international communication, promote the peaceful use of marine areas, ensure equity, conserve living marine resources, utilize resources efficiently, and enhance the study, conservation, and safeguarding of the maritime ecosystem. Adopted in 1982 and effective from November 16, 1994, UNCLOS has been ratified by 168 entities. The US hasn't signed the convention but acknowledges numerous sections as customary international law, especially those pertaining to oceanic carbon dioxide removal (CDR) research, marine scientific exploration, and marine environmental protection [7].

The authors of the Convention sought to address "all issues related to maritime law" by creating a "novel and broadly acceptable Convention on the law of the sea." Considering that the Convention has 168 parties and that several clauses align with customary international law, it might be deemed "generally acceptable." These articles either formalize established international law (IL) or have resulted in pervasive and uniform state practice acknowledged as legally enforceable. When customary international law and the Convention are in harmony, the former governs the interactions between the two sets of parties while the latter imposes duties on third parties, such as the US, who are not parties to the Convention. Nonetheless, it is clear that not all stipulations of the Convention have attained the character of universally applicable ordinary global law [8].

Although the 1982 UNCLOS is widely regarded as a significant achievement of the United Nations treaty-making, several concerns remain unresolved. These encompass marine border disputes, straight baselines, artificial islands, military actions within the restricted economic region, and environmental concerns. Four decades have transformed the essential characteristics of the maritime legal environment and have generated significant implementation issues. The waters are more congested due to competing human endeavors, and as technology advances and geopolitical changes transpire, it is essential that outstanding concerns be addressed. This approach can enhance the original vision of UNCLOS. This article addresses five of the more contentious outstanding problems.[9].

Part VI of the 1982 UNCLOS delineates the legal framework regulating the CS of coastal nations. Article 77 delineates the entitlements of coastal governments concerning their continental shelf, whereas Article 76 specifies the boundaries of that shelf. Coastal nations must define and establish these boundaries in pursuant to Article 76 (ART. 76) and the second enclosure of the Agreement [10]. In addition, the continental shelf is defined and extensive. Rules for determining its outer bounds are set forth in ART. 76 of the UNCLOS. Further, it creates the CLCS, a group of experts in the field who may tremendously aid coastal states in defining the limits of their CS. The International Seabed Authority, the CLCS, and the International Tribunal for the Law of the Sea (ITLOS) are the three bodies mentioned in the Convention. Forty years' post-adoption of the Convention, it may be reliably stated that Article 76 ranks among its principal successes, among other significant milestones [8].

This study analyzes the legislative foundation for delineating the shelf of continents by comparing Saudi Arabia's Maritime Zones Law (SMZL) with the UNCLOS. The research seeks to address five fundamental inquiries:

Q1- What is the continental shelf's legal significance and a natural landmark for coastal states?

Q2 - What is the importance of UNCLOS Article 76 in establishing the continental shelves as a legal entity and a natural feature for coastal states?

Q3- What is the legal significance of SMZL in defining the provisions related to the Kingdom's sovereignty over its continental shelf compared with the UNCLOS?

Q4- Does SMZL sufficiently strengthen the Kingdom's sovereign rights compared to the provisions of the UNCLOS?

Q5-Do international and domestic maritime laws need to be updated and developed to clearly define authority regarding the continental shelves?

The assessment underscored the deficiency of published studies on Saudi Arabia's Maritime Zones Law (SMZL), especially when juxtaposed with the pertinent stipulations of the UNCLOS concerning the delineation of the CS. Addressing this research gap is essential for recording the Kingdom's advancements in governing its marine zones and pinpointing areas for enhancement. Moreover, these investigations are crucial for ensuring that national legislations conform to international norms and pertinent United Nations agreements. This study seeks to highlight the significance of assessing the congruence between local and international legal frameworks by scrutinizing the legal framework for delineating the CS in accordance with Art. 76 of UNCLOS, in juxtaposition with Art. 17 of SMZL. This research bolsters the authority of national legislations in coastal states, fortifies their sovereignty, and safeguards their marine resources in compliance with international law.

2. Materials and Methods

The study employs a comparative analytical approach, scrutinizing legal literature and the UNCLOS. This analysis evaluates Article 17 of the Saudi Arabian Maritime Zones Law (SMZL) in conjunction with Article 76 of the UNCLOS, concentrating on Saudi Arabia's sovereign rights over the continental shelf (CS). The method involved an exhaustive examination of legal materials, analyzing the SMZL alongside the UNCLOS. The study utilized reports from various Saudi departments, significant national and international platforms, and specific media sources. This research primarily aims to conduct a comparative examination of Saudi Arabia's maritime law and the UNCLOS regarding autonomous rights over the CS.

3. Results and Discussion

3.1. The Legal Significance and Natural Landmark Role of the Continental Shelf for Coastal States

In the Truman Proclamation of 1945, the US stated that the CS natural resources adjacent to its shores are "subjected to its sovereignty and authority" [11]. This is generally regarded as the legal inception of the concept of the CS. The US statement prompted other states to make similar claims of sovereignty over the seabed near their shores, which resulted in the recognition of the CS as conventional international law applicable to all states. Nevertheless, confusion persisted for a decade after the Truman Declaration regarding the scope and nature of legally asserted jurisdiction [8].

The original treaty articulation of continental shelf law, the 1958 Continental Shelf Convention, mainly settled the inevitable disparities in claims by coastal states. Important provisions of the 1958 Convention, most notably Art. 2, continue to have doctrinal weight. This article grants exclusive "sovereign rights" concerning the discovery and utilization of renewable resources on the continental shelf. Art. 2 states that a coastline state's rights over the continental shelf are not based on occupation, whether real or imagined, or on a clear declaration [1]. The International Court of Justice (ICJ) deemed Article 2 as "the most fundamental of all the rules of law relating to the continental shelf" in its landmark 1969 North Sea decision. The ruling went on to say that the coastline state has rights over the continental shelf because it naturally extends from its land territory into and beneath the sea. This is because it has sovereignty over the land. The exercise of sovereign rights to explore the seabed and exploit its natural resources further extends these rights [8].

Legal rights derive from the CS status as the submerged extension of a state's territorial authority; the shelves are both a physical object and a concept. Another major shortcoming of the 1958 Convention was that it did not define the continental shelf's outer edge. The UN General Assembly ruled in 1969 that the 1958 Convention's Article 1 "does not adequately delineate the boundaries of the continental shelves and that ordinary global law on the matter is inconclusive." The Third UN Conference on the Law of the Sea, 1973–1982, had as one of its top priorities the development of the continental shelf's seaward edge with "adequate precision" (239). That effort led to Article 76 of the 1982 Convention [8].

3.2. The Importance of UNCLOS Article 76 in Defining the Continental Shelf as a Legal Entity and Natural Feature for Coastal States

On the other hand, among the many complex provisions of the 1982 UNCLOS Convention on the Law of the Sea, Art. 76 stands out. According to the first paragraph of Art. 76, a coastline state's continental shelf (CS) includes the seafloor and subsoil of areas that are underwater and extend beyond its territorial sea. This extent can be achieved either by naturally extending the landmass to the edge of the CS or by measuring the breadth of the territorial sea from baselines 200 nautical miles away, whichever is greater. One way to describe the text of Art. 76 of the 1982 UNCLOS is shown in Table 1.

Table 1.

The content of Art. 76 of the 1982 UNCLOS.

Paragraphs of article 76 of UNCLOS	Content
Paragraph 1	The continental shelf of a coastal state comprises the seabed and subsoil of submarine areas extending beyond its territorial sea. It is determined by either the natural prolongation of its land territory to the outer edge of its continental margin or by a distance of 200 nautical miles from the baselines. The coastal state can select the more advantageous option.
Paragraph 2	The continental shelf shall not extend beyond the limits specified in Paragraphs 4 to 6.
Paragraph 3	The continental margin consists of the submerged prolongation of the landmass, including the seabed and subsoil of the shelf, slope, and rise. It excludes the deep ocean floor, its oceanic ridges, and their subsoil.
Paragraph 4	(a) The coastal state shall determine the outer edge of the continental margin beyond 200 nautical miles using either of two methods: (i) by a line defined in Paragraph 7 based on sedimentary rock thickness, or (ii) by a line referencing fixed points no more than 60 nautical miles from the foot of the continental slope. (b) In the absence of contrary evidence, the foot of the continental slope is the point of maximum change in gradient.
Paragraph 5	The outer limits of the continental shelf on the seabed, drawn according to Paragraph 4, shall not exceed 350 nautical miles from the baselines or 100 nautical miles from the 2,500-meter isobath.
Paragraph 6	For submerged ridges, the outer limits shall not exceed 350 nautical miles from the baselines; however, this rule does not apply to natural components of the continental margin, such as plateaus, rises, caps, banks, and spurs.
Paragraph 7	The coastal state shall delineate the outer limits of its continental shelf beyond 200 nautical miles using straight lines not exceeding 60 nautical miles, connecting fixed points defined by latitude and longitude coordinates.
Paragraph 8	The coastal state shall submit information on the limits of the continental shelf beyond 200 nautical miles to the Commission on the Limits of the Continental Shelf, which shall make recommendations to coastal states. The limits established by the coastal state based on these recommendations shall be final and binding.
Paragraph 9	The coastal state shall deposit charts and relevant information, including geodetic data, describing the outer limits of its continental shelf with the Secretary-General of the United Nations. The Secretary-General shall publicize this information.
Paragraph 10	These provisions do not affect the delimitation of the continental shelf between states with opposite or adjacent coasts.

Furthermore, Art. 76 of UNCLOS delineates the fundamental elements for a coastline state's right to the CS in Paragraph 1. If the state's land area naturally extends to the external limit of the continental margin, then the entitlement may be established using the continental margin criterion. Alternatively, if the distance is 200 nautical miles from the baselines, then the 200-nautical-mile criterion can be used. The coastal state has the authority to choose the more advantageous of these two alternatives. While the 200-nautical-mile mark is straightforward, the continental margin criteria necessitate more complex rules and additional procedures. For areas exceeding 200 nautical miles, the outline to define the continental shelf's external borders according to the CS criteria is provided in paragraphs 2–7.

Furthermore, Paragraphs 8 and 9 outline the process through which a coastal state determines how the Commission on the Limits of the Continental Shelf (CLCS), a specialized scientific entity, oversees the outer boundaries of its continental shelf. In the first step, the coastal state presents its proposed outer limits beyond 200 nautical miles along with scientific and technical evidence. Next, the CLCS evaluates the submission and makes suggestions. Finally, the coastal state sets the external borders based on these suggestions, which are final and must be followed. Despite the advisory nature of the CLCS, its recommendations possess legal importance. If the coastal state implements the CLCS's recommendations, the boundaries become definitive; if not, they lack binding authority, and other states may contest their legitimacy. Although the suggestions of the CLCS are advisory, the treaty recognizes the sovereignty of the coastal state in establishing its own boundaries. Furthermore, Paragraph 10 includes a stipulation about the demarcation of the margin continental line between adjacent states.

Conversely, Art. 76 of the treaty substantially enhances international maritime law by delineating explicit criteria for ascertaining the external boundary of the continental margin and thus defining the borders of regions outside state authority. The International Court of Justice (ICJ) has acknowledged paragraph 1 of Art. 76 as ordinary global law, and it is contended that paragraphs 2–7 should be similarly accepted. Although the article's regulations are intricate and require scientific evidence, the formation of the CLCS to assist coastal governments has facilitated the determination of these boundaries. Nevertheless, paragraph 8 concerning the CLCS is unlikely to evolve into customary international law, indicating that only nations party to the Convention are obligated to provide information to the CLCS. The ICJ has encountered challenges in implementing treaty provisions concerning the CLCS in disputes between Nicaragua and Colombia, resulting in ambiguity regarding its function and the connection between continental shelf rights and its outer bounds. Furthermore, several judges have suggested restricting the CLCS's authority to states parties, notwithstanding the lack of such a restriction in the Convention. Delineating the limits of the continental shelf exceeding 200 nautical miles is an ongoing process. Several submissions are currently being reviewed, and most coastal nations have not yet set their official outer limits. Non-parties have not delineated their constraints, and several borders remain unspecified. The CLCS and international courts will persist in tackling these difficulties, with forthcoming cases providing opportunities for adjustments and the amicable resolution of conflicts [7].

3.3. The Legal Significance of Saudi Arabia's Maritime Zones Law in Defining Sovereignty over Its Continental Shelf: A Comparative Analysis with UNCLOS

Notwithstanding the significance of Art. 76, regarded as a pivotal achievement of the 1982 UNCLOS, it is evident that there are contradictions within its paragraphs, potentially complicating its understanding, interpretation, and implementation. The subsequent section delineates the primary areas of convergence:

The continental shelf is delineated by two standards: the geological criterion, which pertains to the natural expansion of a coastline state's territory, and the geographical criterion, which is determined by a interval of 200 miles across the ocean.

Paragraph 3 describes the features of the margin continent (slope, shelf, and rise) and lists the areas that are not included (deep ocean bottom and its ridges). This overlap may result in arguments about the classification of specific regions as part of the natural extension of the coastline state.

Paragraph 4 delineates the external borders of the continental coastline by utilizing fixed locations. and precise measurements, whilst Paragraph 7 specifies that these borders are to be established with linear segments not than 60 nautical miles in length. There is overlap because both paragraphs talk about the technical process of setting boundaries from different points of view, which could make implementation uncertain.

Paragraph 5 establishes maximum boundaries for the continental shelf (350 nautical miles). However, Paragraph 6 excludes specific geographical features, such as submerged ridges and natural hills, from these boundaries. This could make it hard to draw borders where there are natural elevations or submerged ridges, since Paragraph 5 sets limits and Paragraph 6 lets you make exceptions.

Geological evidence, such as that found in Paragraph 4(a)(i), may contradict this. Paragraphs that rely on fixed or predefined measurements, such as Paragraph 5, may also contradict this. Geological criteria may make it difficult for coastal states to gather enough information to prove that the CS has grown, but the geographical criterion of 200 nautical miles is easier to use. Paragraph 1 allows coastal governments to utilize either the geological or geographical criterion, thus leading to procedural ambiguities when substantiating the preference for one criterion over the other, particularly when supplementary proof is needed by Paragraphs 4 through 7.

Furthermore, the article contains contradictions within its paragraphs. 76 arise from its intricate character, which amalgamates geological, geographical, and legal elements in defining the boundaries of the CS. This complicates the harmonization of paragraphs for coastal nations and frequently requires the engagement of legal and geological specialists to guarantee exact adherence to its stipulations.

Conversely, following the Kingdom of Saudi Arabia's endorsement of international maritime law as per Royal Decree No. (M/17) dated 31/1/1996, the Kingdom enacted the Saudi Arabia's Maritime Zones Law “SMZL” under Royal Decree

No. (M/6) dated 13/12/2011, establishing the legal framework that regulates the Kingdom's sovereignty and rights over its diverse maritime zones [12]. Furthermore, the system delineates essential concepts such as baselines, internal waters, the continental shelf, the territorial sea, and the exclusive economic zone (EEZ), achieving a balance between protecting national interests and adhering to international legal commitments. It delineates the marine limits for each zone, underscoring sovereign rights for the exploitation and administration of natural resources, environmental conservation, and the assurance of security and safety [12].

The system includes structures governing the innocent passage of boats, with stringent rules aimed at safeguarding national security and conserving maritime resources. It regulates rights and responsibilities inside the EEZ and continental shelf, encompassing economic activities like fishing and energy generation. The system complies with international treaties and national rules to guarantee conformity with international law, reinforcing the Kingdom's sovereign rights over its maritime resources and the areas close to its territorial sea [12].

The SMZL governs the Kingdom's sovereignty and entitlements over its marine regions, encompassing territorial seas, exclusive economic zones, and the continental shelf. This legislation conforms to the UNCLOS, created in 1982 to create a comprehensive framework for global ocean management.

The SMZL delineates essential maritime zones, including:

- Waters located landward of the baseline locations used to demarcate the territorial seas are referred to as internal waters.
- Subject to some rights of passage, Saudi Arabia exercises total control over the 12-nautical-mile-long territorial sea that stretches from the baseline.
- The Exclusive Economic Zone (EEZ) reach a distance of to 200 nautical miles from the coastline, Saudi Arabia is granted sovereign rights. Explore, utilize, conserve, and manage natural resources.

The continental shelf extends beyond the EEZ, where Saudi Arabia is located. The discovery and exploitation of submerged and surface natural resources are under Arabia's exclusive purview.

The legislation guarantees that Saudi Arabia's maritime rights and jurisdiction conform to UNCLOS stipulations, encompassing freedom of navigation, the right of innocent passage, and the safeguarding of the marine environment. The Kingdom's legislation establishes a legal structure for the administration of its marine zones, ensuring adherence to UNCLOS, thereby strengthening its dedication to international maritime law and enhancing global maritime governance [12].

Article 17 of SMZL defines the CS, whereas Art. 5 addresses the delineation of the Kingdom's territorial sea. "The CS of the Kingdom encompasses the seabed and subsoil of submerged regions extending beyond its territorial sea, throughout the natural extension of the Kingdom's land territory," states Article 17 of Saudi legislation. Article 5 of the same statute specifies: "(1) The 12 nautical miles that make up the Kingdom's territorial sea are measured from the baseline. The outer boundary of the territorial sea is the line where the sea's breadth equals the distance from any point on it to the baseline's closest point [12].

3.4. Assessing the Adequacy of Saudi Arabia's Maritime Zones Law in Strengthening the Kingdom's Sovereign Rights Compared to UNCLOS

Article 17 of the SMZL states that the CS is the soil of regions that are underwater and extend beyond the territorial sea. This is because the Kingdom's land area naturally expands. This definition grants the Kingdom sovereign powers to utilize natural resources in certain regions, including oil, gas, and minerals, thereby enhancing its economic and sovereign status. This demarcation complies with international marine regulations, protecting the Kingdom's interests and rights on a global scale.

Article 5 of the same legislation is essential in delineating the territorial sea of the Kingdom, which extends 12 nautical miles from the baseline into the sea. A line whose length from any given location to the closest baseline is exactly equal to the breadth of the territorial sea is said to constitute the sea's outer border. This precise outline ensures that the Kingdom's maritime borders are established legally and accurately. It also serves as a guide for estimating the continental shelf (CS), which expedites the legal and technical steps needed to establish maritime sovereignty limits.

Consequently, Article 76 of the UNCLOS constitutes the international legal foundation for the regulation of the continental shelf. It permits coastal nations to define whether the borders of the continental shelf exceed 200 nautical miles, where the landmass naturally extends beneath the seabed. Upon comparing Article 17 of the SMZL with Article 76 of UNCLOS, it is clear that Saudi Arabia maintains a coherent stance in alignment with international law regarding its maritime rights. Article 17 further fortifies the Kingdom's legal position in protecting its sovereign rights over natural resources that extend beyond its maritime boundaries.

In addition, when the CS exceeds 200 nautical miles, its utilization of natural resources and the sovereign rights of the Kingdom over them are emphasized in Article 17. Simultaneously, Article 5 establishes a definitive legal framework for assessing these rights by explicitly delineating the limits of the territorial sea. This dual structure, in conjunction with compliance with Article 76 of UNCLOS, bolsters international acknowledgment of the Kingdom's marine rights and guarantees legal safeguards against prospective conflicts.

The amalgamation of Articles 17 and 5 of SMZL with Article 76 of UNCLOS underscores the establishment of a definitive and resilient legal framework that is necessary. This framework allows the Kingdom to assert its sovereign rights over its marine zones while adhering to international laws, thus improving its legal position and protecting its economic and strategic interests.

3.5. The Need for Updating and Developing International and Domestic Maritime Laws to Clarify Authority over Continental Shelves

The ICJ's decision in *Nicaragua v. Colombia* codified a principle of customary international law that states cannot claim ECS that extends into waters within 200 nautical miles (NM) of another state. The International Court of Justice (ICJ) came to this conclusion after reviewing the reports of the states that had participated in the CLCS. It noted that most of the states had refrained from asserting an ECS within another state's 200 nautical mile zone. Nonetheless, the ICJ's rationale seems deficient. Although some states have been careful in asserting their ECS, an analysis of the current CLCS submissions shows that there isn't enough consistent state practice or *opinio juris* to support the recognition of a customary rule according to the ICJ's definition [13].

On the other hand, Art. 17 of the SMZL holds significant importance in tackling contemporary difficulties. In order to protect Saudi Arabia's sovereign rights over its marine resources, this legislation defines the CS as the bottom of the ocean and soil of submerged regions that expand across the territorial sea. It also ensures that these regions are in accordance with the natural expansion of the Kingdom's land territory. It establishes a comprehensive legal framework for the extraction of natural resources, including oil, gas, and minerals, in accordance with international developments in marine governance. Moreover, Art. 17 strengthens Saudi Arabia's dedication to international norms, augmenting its capacity to uphold its marine rights amid conflicts and evolving environmental circumstances.

There is a pressing necessity to revise the Art. 76 of UNCLOS, which delineates the requirements for the CS of coastal nations, to confront modern difficulties and guarantee equity in the utilization of marine resources. Principal domains for enhancement encompass:

- Reconsidering the natural extension of the continental shelf: The concept of "natural extension" Clarification is necessary to promote transparency and prevent misunderstandings and conflicts among coastal governments. Contemporary tools for geological and geophysical data exploration must be integrated to improve the assessment of natural extension. Moreover, enhancing global cooperation in scientific and technical studies concerning the accurate demarcation of the continental shelf is essential. Promoting the exchange of scientific and technological data across governments would augment transparency and cultivate mutual trust.
- Integrating environmental and sustainability considerations: Over its 25-year history, the International Tribunal for the Law of the Sea has adjudicated many environmental matters. It has shown a steadfast dedication to safeguarding and conserving the maritime environment; therefore, it has made a substantial contribution to worldwide initiatives aimed at saving oceans and seas [14]. Nonetheless, rigorous environmental requirements must be incorporated into the delineation of continental shelf limits to safeguard marine ecosystems. Protocols for environmental impact assessments must be instituted prior to the use of natural resources in continental shelf regions. Also, clear laws need to be made about how the continental shelf can be used for fishing, tourism, and the production of renewable energy. This will help with efforts to achieve sustainable development. In the Maldives, the rising problems of environmental concerns, notably climate change, need urgent enhancement through the integration of environmental laws, regulations, and policies with fisheries and tourist activities. Also, improving environmental governance and promoting sustainable development are important parts of making the laws better and making sure that the country's natural resources are managed in a way that doesn't harm them [15].
- Addressing the effects of climate change: This involves reevaluating the impact of rising sea levels on the continental shelf, which enables coastal governments to protect their sovereign rights. New regulations must be established to address the geographic and geological alterations caused by climate change. The vast melting of ice sheets associated with global warming has been the primary cause of the 3.3 millimeter annual rise in global sea levels since 1993 [16]. According to NASA, "Global sea levels are rising due to anthropogenic global warming, with recent rates being unprecedented over the past 2,500 years" [15]. Moreover, the sea levels are projected to rise another meter over the next century [17].

Furthermore, a detrimental effect of climate change is the increase in sea levels, which not only inflicts physical harm on coastal structures but also presents issues to the legal system regulating maritime law. Rising sea levels are changing the dynamics of marine features. Despite the United Nations Convention on the Law of the Sea (UNCLOS) giving legal priority to the interaction between land and water, rising sea levels are threatening their legal categorization. This causes concern that islands with full maritime rights might lose their EEZs, continental shelf, and even territorial seas if this happens. One possible solution to the problems caused by rising sea levels is to change the features of the ocean physically. However, legal remedies are a more long-lasting and cost-effective choice [18].

Amending Art. 76 of international sea law must address contemporary concerns related to marine sovereignty. The sea must prioritize environmental sustainability and technological progress. It should also foster international collaboration to guarantee the sustainable and fair utilization of marine resources, as shown by Article 17, which underscores the need for robust national legal frameworks to support international norms.

4. Conclusion

The 1982 UN Convention on the Law of the Sea (UNCLOS) established a comprehensive framework for maritime control. However, 40 years have gone by. The preceding 40 years have revealed flaws and challenges that must be addressed to remain relevant. Solving maritime border conflicts, man-made islands, and environmental sustainability is more vital than ever due to rising competition for marine resources and advances in technology and geopolitics. This analysis shows that Article 17 of SMZL and Article 76 of UNCLOS are very similar. Saudi Arabian law safeguards national interests and provides sovereign rights over its continental shelf and natural resources. Saudi marine rules are compared to UNCLOS to demonstrate

the Kingdom's proactive efforts to comply with international norms while protecting sovereignty and promoting resource sustainability. The paper proposes revising UNCLOS Article 76 to address marine sovereignty, technological advancement, and environmental conservation issues. It also calls for better cooperation between national and international regulations, updating Saudi maritime legislation to reflect global changes, and encouraging countries to work together to exploit marine resources equitably and sustainably. In conclusion, improving national and international legal and institutional frameworks is crucial to achieving UNCLOS's original goal while accepting the changing reality. The global community can ensure sustainable maritime management for future generations by aligning national legal frameworks like Saudi Arabia's with international principles and encouraging collaboration.

References

- [1] United Nations, "United Nations convention on the law of the Sea (UNCLOS)," Retrieved: https://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf, 1982.
- [2] T. Treves, "United Nations convention on the law of the Sea, U.N. Audiovisual Library of international law," Retrieved: <https://legal.un.org/avl/ha/unclos/unclos.html>, 2008.
- [3] D. Freestone, "The law of the sea convention at 30: Successes, challenges and new agendas," *The International Journal of Marine and Coastal Law*, vol. 27, no. 4, pp. 675-682, 2012. <https://doi.org/10.1163/15718085-12341262>
- [4] J. A. Roach, "Today's customary international law of the sea," *Ocean Development & International Law*, vol. 45, no. 3, pp. 239-259, 2014. <https://doi.org/10.1080/00908320.2014.929460>
- [5] M. Spencer, F. Culhane, F. Chong, M. O. Powell, R. J. R. Holst, and R. Helm, "Estimating the impact of new high seas activities on the environment: The effects of ocean-surface macroplastic removal on sea surface ecosystems," *Peer-Reviewed Journal*, vol. 11, p. e15021, 2023. <http://dx.doi.org/10.7717/peerj.15021>
- [6] R. Churchill, *The 1982 United Nations convention on the law of the sea. In the Oxford Handbook of the Law of the Sea*, (Donald R. Rothwell et al. eds., 2015). Oxford, UK: Oxford University Press, 2015.
- [7] W. Burns, "Governance of ocean-based carbon dioxide removal research under the United Nations conventions on the law of the sea," *Maine Law Review*, vol. 75, no. 1, pp. 38-70, 2023.
- [8] K. A. Baumert, "Article 76 of the UN convention on the law of the sea: Parties and non-parties," *International Law Studies*, vol. 99, no. 1, pp. 964-988, 2022.
- [9] G. Barrie, "The 1982 United Nations law of the sea convention: Unresolved issues remain," *Obiter*, vol. 42, no. 3, pp. 529-546, 2021.
- [10] H. Brekke, *Chapter 4 setting maritime limits and boundaries: Experiences from Norway. In: The Law of the Seabed Access, Uses, and Protection of Seabed Resources. Catherine Banet (ed.). Berlin, Germany: De Gruyter Brill.* https://doi.org/10.1163/9789004391567_006, 2020.
- [11] American Presidency Project, "Proclamation 2667—policy of the United States with respect to the natural resources of the subsoil and sea bed of the continental," Retrieved: <https://www.presidency.ucsb.edu/documents/proclamation-2667-policy-the-united-states-with-respect-the-natural-resources-the-subsoil>, 1945.
- [12] Saudi Arabia's Maritime Zones Law (SMZL), "Saudi Arabia's maritime zones law," Retrieved: <https://laws.boe.gov.sa/BoeLaws/Laws/LawDetails/98b1d2e8-4724-439b-af00-a9a700f255ef>, 2011.
- [13] H. Leung, "The extended continental shelf in Nicaragua v Colombia: Identifying a customary rule based on CLCS submissions?," *Ocean Development & International Law*, vol. 55, no. 1-2, pp. 206-233, 2024. <https://doi.org/10.1080/00908320.2024.2366865>
- [14] T. Heidar, "The contribution of the international tribunal for the law of the sea to the protection of the marine environment," *The Korean Journal of International and Comparative Law*, vol. 9, no. 2, pp. 354-369, 2021. <https://doi.org/10.1163/22134484-12340162>
- [15] J. E. Techera and M. Cannell-Lunn, "A review of environmental law in Maldives with respect to conservation, biodiversity, fisheries and tourism," *Asia Pacific Journal of Environmental Law*, vol. 22, no. 2, pp. 228-256, 2019. <https://doi.org/10.4337/apjel.2019.02.05>
- [16] World Meteorological Organization (WMO), "State of the global climate 2020," Retrieved: https://library.wmo.int/doc_num.php?explnum_id=10444. 2020.
- [17] A. Grinsted, J. C. Moore, and S. Jevrejeva, "Reconstructing sea level from paleo and projected temperatures 200 to 2100 AD," *Climate Dynamics*, vol. 4, p. 461, 2010. <https://doi.org/10.1007/s00382-008-0507-2>
- [18] X. Chen and X. Qi, "Mitigating effects of sea-level rise on maritime features through the international lawmaking process in the Law of the Sea," *Frontiers in Marine Science*, vol. 9, p. 1072390, 2022. <https://doi.org/10.3389/fmars.2022.1072390>